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REMARKS

The present application contains claims 1 to 7.

Applicant has amended claim 1 to include the limitation "wherein said encrypted acceleration tunnel and said VPN acceleration server utilized same network layer in a standard OSI model" to better define the present invention. Support for the amendment may be found, for example, at page 10, line 21 to page 11, line 3.

Applicant has further amended claim 7 to include the limitation "wherein said encrypted acceleration tunnel and said virtual private network tunnel utilized same network layer in a standard OSI model" to better define the present invention. Support for the amendment may be found, for example, at page 10, line 21 to page 11, line 3.

Drawings

Applicant has amended Figure 3 to correct a clerical error by changing the reference character "112" to "110", to include the reference character "116" and the designation "PRIOR ART".

Applicant has further amended Figure 4 by changing the reference character " 108' " to " 108^1 " to be consistent with the Description.

Specification

Applicant has amended page 4, line 23; page 6, line 5 and page 11, line 9 to correct the clerical errors identified by the Examiner.

Applicant has further amended page 7, line 20 to recite "on the wireless network [108^1]. Both to correct a typographical error and to clarify the meaning in response to the Examiner's objection to Figure 4.

Claim Objections

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Applicant has deleted the second expression "service is provided between the private network" in claim 7.

Claim Rejection under 35 USC §103

The Examiner rejected claims 1, 3, 6, 7, and 10 under 35 U.S.C. 103(a) as being unpatentable over Chuah et al. (US Patent 6,496,491) hereinafter referred as Chuah, and in view of Gleeson et al., (US Patent No. 5,446,736), hereinafter referred as Gleeson.

Applicant respectfully requests reconsideration and withdrawal of this rejection in view of the amendments made herein and the following comments.

Chuah teaches a "hand-off" that allows the transfer of an existing PPP connection from one packet server to another packet server in a mobile network. As stated by the Examiner, Chuah does not disclose methods for wireless transmission optimization.

Chuah therefore does not teach or suggest establishing "an encrypted acceleration tunnel between a VPN acceleration client and a VPN acceleration server" as claimed by the present application. As stated throughout the disclosure, for example at page 11, lines 10 to 13, the encrypted acceleration tunnel over the air interface is not a VPN channel, and therefore does not have the problem of dropped VPN connection due to coverage issues.

This problem with coverage was realized in Chuah at column 9, lines 18 to 30, "*We have realized that in a wireless environment tunnelling protocols, such as L2TP, do not allow a remote user to change the existing PPP connection from one switching element to another. [...] However, the existing PPP connection and hence the VPN session is dropped and must be re-established since, as noted, there is no ability to transfer existing PPP connections from one NAS to another.*"

Therefore, Chuah clearly teaches away from the present invention by establishing a direct VPN connection between the client 805 and the NAS server 815, and introducing new control messages (column 9, lines 6 to 41) for hand-off between servers, as compared to the claimed invention of the present application by using an encrypted acceleration tunnel between a VPN acceleration client and a VPN acceleration server.

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Gleeson teaches the insertion of an additional optimization layer into the protocol stack between the existing layers. The exact location of this additional optimization layer is defined (column 9, lines 19 -21). As stated at column 4, lines 1 to 4, the "*data packet stream passing through the standard protocol stack is converted in the optimization layer*". As described for example, at column 13, line 23 to column 14, line 59, and in Figure 11, the optimization layer of Gleeson introduces new header, new fields, and require the conversions at both client and server sides.

Applicant submits that the statement in Gleeson to "allow the use of standardized protocols to interface nodes with the wireless network while taking into account the special characteristics of the wireless WAN" is not suggestion, inspiration, or motivation to combine with Chuah to reconstruct the claimed invention, as Chuah clearly teaches away from a non-VPN encrypted acceleration tunnel between a VPN acceleration client and a VPN acceleration server. Absent some incentive or suggestion in the prior art to support the combination, obviousness is not established.

Even if Chuah and Gleeson teach a combination of their respective features, the result would be a wireless network having VPN channel from a server to a client, using additional network layer other than the standard seven layers model of an OSI model. This is fundamental different than the present claimed invention.

However, for the sole purpose of expediting the prosecution of the present application, Applicant has incorporated the limitation "wherein said encrypted acceleration tunnel and said virtual private network tunnel utilized same network layer in a standard OSI model" in claim 1, and corresponding limitation in claim 7. Applicant submits that this limitation clearly distinguish the present invention from Gleeson.

Applicant notes that the dependent claims are inventive at least by virtue of their dependencies.
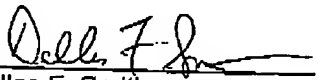
Therefore, Applicant submits that claims 2-6, and 8-11 are inventive in view of Chuah and Gleeson, further in view of Hagen (US Application 2002/0075844) or Forslow (US Application 2002/0133534).

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Applicant respectfully requests reconsideration of this application, based on the foregoing amendments and remarks.

Respectfully Submitted,

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